

DATABASE Expert

Kay Ewbank rolls up her sleeves and gets her hands dirty to help an oil rigger close his databases and a cluttered cook store his recipes more efficiently



SQL SERVER 2005 TO LAUNCH IN AUTUMN

Microsoft is to launch SQL Server 2005 on 7th November. The database will be launched at the same time as new versions of the Visual Studio programming environment and BizTalk Server business workflow management system. An Express edition of SQL Server, offering similar features to the full product, will be available to download for free and is designed to replace the MSDE desktop database engine.

SQL Server 2005 is the first new release of the software for five years and promises major improvements to the facilities for business intelligence analysis and XML support, plus tight integration with Visual Studio 2005.

NEW FILEMAKER TOOLS FOR MAC

FileMaker chose Apple's Worldwide Developer Conference in June to launch a Mac OS X Tiger feature called Datagraph Widget. The database tool provides bar graph views of FileMaker Pro data through the new Mac OS X Dashboard. Bar graph views display up to five bars based on up to five fields of data. FileMaker also announced a set of new Automator Actions for creating workflows of FileMaker scripts. Previews of both programs are available at www.filemaker.com/tiger.

Q I've created an Access database for recipes as my kitchen was starting to resemble a recycling facility with all the pieces of paper I'd cut from magazines or copied from various sources.

In the database I've created a table for recipes that has two related tables, one for ingredients and one for instructions. I then display the related tables in subforms. The problem is that when I open the main form the ingredients subform appears in both panes rather than the instructions appearing in the second one.

I've tried renaming and deleting the subforms, but I always end up with the same problem.

Adrian Faulkner

A This is an interesting question because it raises the issue of what the perfect database structure for a recipe should be. Recipes may seem fairly simple but they are examples of fairly complex data structures, and their long history and the wide variety of ways they can be recorded means you can't be sure that any single approach will work. For example, many recipes have such instructions as 'salt to taste', or 'enough stock to cover the meat'. If you put non-standard information such as this into a database, you'll have to make a few compromises to make it fit.

It makes sense to have a main table for the recipe and a related table for the ingredients. That way you can store as many ingredients for a particular recipe as you like, and you need only type in the details of the ingredients once. However, when it comes to the instructions, the argument for another related table is less clear.

I think it would make more sense to change the structure of the database so that the

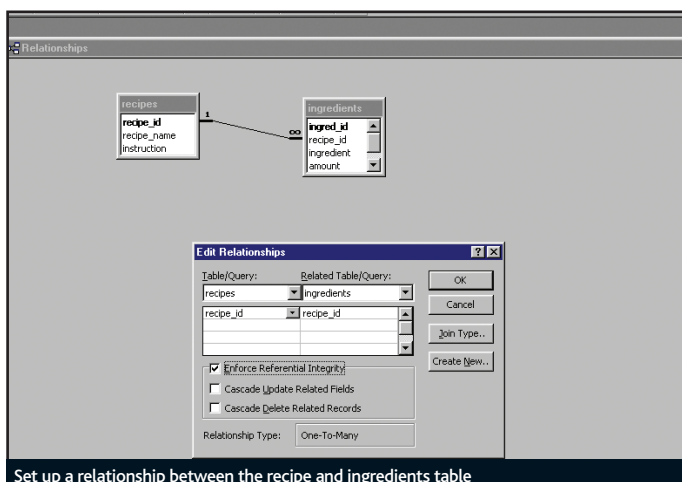
instructions are held in a memo field in the main table. A memo field has pretty generous limits on the amount of text you can store, so you should be able to keep track of even the most complex instructions. What's more, you're unlikely to want to re-use instructions in other recipes.

We'll start with the recipe table. This has a recipe id field, which is an autonumber field and the primary key for the table. You then store the recipe name as a text field and the instructions as a memo field.

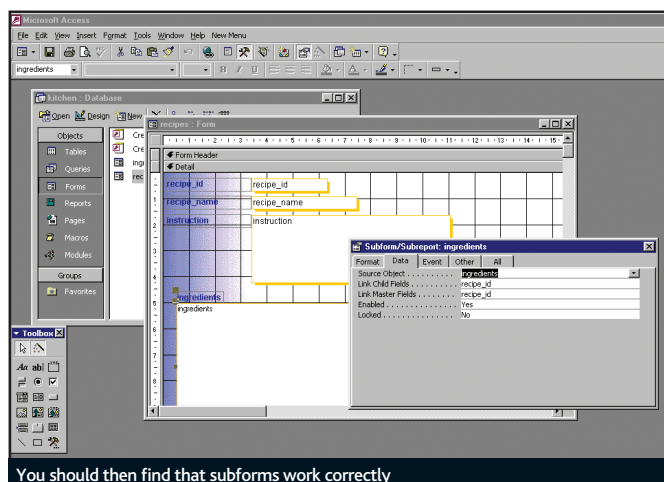
The ingredients table has an ingredient id field, which is the primary key for this table, and a recipe id field that will form the relationship with the main recipe table. It will also have an ingredient name field and either a text field for the ingredient amounts (in which you can store '100 grams', for example), or a numeric field for the amount and a separate text field for units. The latter option allows you to store a recipe in ounces and add a button on your form that triggers a macro to convert it into grams.

You could also convert American recipes that use cups into ounces, grams and so on. If you think you'll want to do this, it's a good idea to set up the possible units in a combo box pick list, so you don't have problems with different ways of writing the same unit. It's no use having one recipe entered with weights in lbs and another in pounds.

If you want to stick with separate Ingredients and Instructions tables, it shouldn't be difficult to display two subforms on your recipe form, each of which links to a different table. I suspect your problem lies in the way you've defined the relations between the various tables. Look carefully at the links between the tables in the relationships window (Tools, Relationships). Make sure you also check any hidden relationships created by lookup fields by selecting Relationships, Show All from the menus in this window.



Set up a relationship between the recipe and ingredients table



You should then find that subforms work correctly

Q When I need to make all the fields from a table available in a query, I get really bored adding them to the grid individually. Is there a quicker way?

Allen Purvis

A If you want all the fields and don't need to refer to them individually, you can simply choose the asterisk symbol from the top of the list of fields. This puts all the fields into one column. They'll all appear in the query output but you can't set individual criteria for them.

If you want the fields in individual columns, double-click the title bar of the table's field list in the upper part of the Query design window. This highlights all the fields in the table. You can then drag the highlighted fields as a group to the Field row in the design grid, where they will be placed in adjacent columns.

Q I am having difficulty closing an Access database I created for my company. I work on North Sea oil rigs and part of my work includes administrative duties. I have various databases, which are also used by other personnel. For example, we have a database that records all our medical consultations, treatments and stock control. Another is a Personnel on Board (POB) database, which is used to allocate lifeboats, emergency duties and so on.

All the databases are written in Access 2000 and, to make them easier for other people to use, I dragged a short cut for opening them to the desktop. They open fine the first half a dozen times, perhaps, then nothing. When I double-click them they will not open. If I reboot the PC they work again for a while before the problem arises again. If, however, I open the Task Manager from the desktop and go to Processes, I find as many as 20 MSAccess.exe files listed. If I end the processes one by one and return to my databases they start to open again.

When closing the database a series of action queries runs in the background that deletes blank records and records where Date Departed is less than Date(), for example, and then Quit takes us back to the desktop. Could this be connected?

I know how to get round the problem, but my colleagues may struggle while I'm on leave.

Barry Winfield

A The extra copies of Access running in the background are preventing your database starting. Unfortunately, there are several reasons why this problem can occur in Access, so you'll need to go through your database and, more importantly, the code behind it to track down each potential reason in turn.

The first and easiest problem to track down is to do with the way that you close Access. While the advice from Microsoft says that you should use:

REVIEW BOOK

Access Hacks

RATING ★★★★★

PRICE £17.50

SUPPLIER www.amazon.co.uk

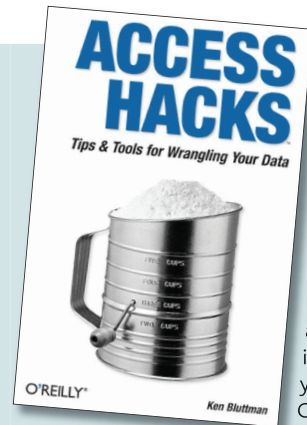
PAGES 334

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This month's book, *Access Hacks*, may sound complicated, but the subtitle – *Tips and Tools for Wrangling Your Data* – is rather more accurate. Author Ken Bluttman has not set out to give a lesson on how to best create relational databases; rather he's put together a collection of clever tips and tricks.

A common fault with books of tips is that they lack structure and often amount to a hotchpotch of miscellaneous advice. *Access Hacks* is better organised, though, providing categories such as presentation or SQL and queries. The tips are also arranged into three levels of difficulty: beginner, moderate and expert.

Each tip includes a description of a situation where it would be useful to you or your users. The book then explains the technique (or the Visual Basic for Applications or macro code) that the tip involves. Finally, in the more complex examples, a section called 'hacking the hack' provides information on how to change or extend the tip for other purposes.

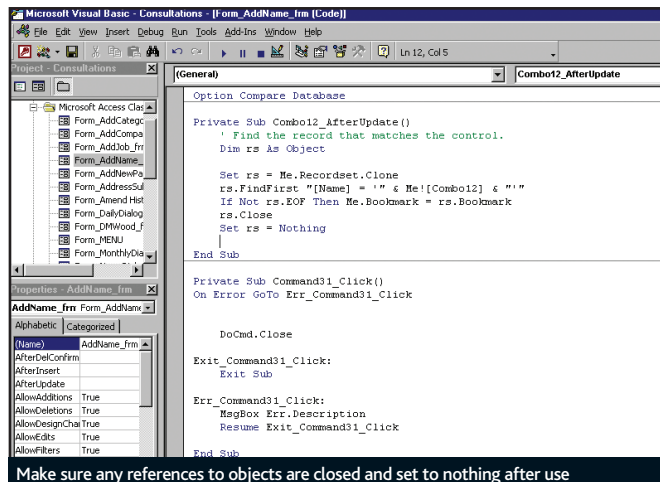


Some of the tips are excellent and will save lots of time. A few seem obvious, such as using the Top predicate to return a subset of records in a query, although I suppose it's only obvious if you know it's there. Good simple ideas include how to put

the cursor at the end of any existing data in a control on a form, and how to show the user the progress of a long-running process so they don't get impatient and close the application.

Most of the tips involve some coding and the examples get pretty advanced, tackling such topics as using Access as a front end to MySQL, sending data to Outlook and so on. However, it's one of the more interesting books I've seen recently, and while you may never use most of the tips, it will probably spark off other ideas for improving your own databases.

- ☒ Some great tips on how to get the best out of Access
- ☒ Only 100 tips, so you may not find what you're looking for



Make sure any references to objects are closed and set to nothing after use

Application.Quit

the old style:

DoCmd.Exit

seems to be more reliable. A more likely problem, but one that involves more work, is that you've used DAO objects such as recordsets and haven't closed them once you've finished with them. In theory, Access works out when you've finished using an object and closes it for you. However, this doesn't always happen. If things become too complicated, Access gets confused and doesn't realise when it should close a particular object.

Wherever you have code along the lines of:

```
set rs = Currentdb.OpenRecord
("SomeTable", dbOpenDynaset)
```

'followed by code that makes use of the recordset

you must end the code with:

```
rs.Close
Set rs = Nothing
```

In many cases, this solves the problem you describe. You need to check any DAO objects you create, so QueryDefs, for example, would need the same type of treatment.

The third thing to look for is any code that uses the shorthand method of checking the value of a Boolean control:

```
If blnCheckBox then
```

You should change any such tests to check explicitly for True or False. In other words, you'd change the example above to:

```
If blnCheckBox = True Then
```

If you make sure all your references are closed correctly in this way, you should find that your short cuts no longer leave extra copies of Access running in the background and the problem should disappear. **ES**

CONTACT

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